

CLAIMS

What is claimed is:

1. An air bridge produced by:
 - depositing one or more circuit components on a substrate;
 - 5 depositing a sacrificial material over at least a portion of the circuit components;
 - depositing a crossover circuit trace over the sacrificial material, the crossover circuit trace crossing over the circuit components; and
 - thermally decomposing the sacrificial material.
2. The air bridge of claim 1, wherein depositing a sacrificial material comprises depositing the sacrificial material in a manner causing the sacrificial material to be dome shaped.
3. The air bridge of claim 1, wherein the sacrificial material comprises polynorbornene.
4. The air bridge of claim 1, wherein the one or more circuit components comprise a circuit trace.
5. The air bridge of claim 4, wherein the circuit trace comprises a signal trace.

6. The air bridge of claim 4, wherein the circuit trace comprises a ground trace.
7. The air bridge of claim 4, wherein the circuit trace comprises a power trace.
8. The air bridge of claim 1, wherein the crossover circuit trace comprises a signal trace.
9. A method comprising:
 - depositing one or more circuit components on a substrate;
 - depositing a sacrificial material over at least a portion of the circuit components;
 - 5 depositing a crossover circuit trace over the sacrificial material, the crossover circuit trace crossing over the circuit components; and
 - thermally decomposing the sacrificial material.
10. The method of claim 9, further comprising before depositing the crossover circuit trace, patterning the sacrificial material.
11. The method of claim 10, wherein patterning comprises:
 - spin coating the sacrificial material;
 - depositing a mask layer on the sacrificial material;
 - depositing photoresist material on the mask layer;
 - 5 etching at least a portion of the mask layer;

removing the photoresist material;
reactive ion etching the sacrificial material not layered by the mask layer; and
removing the mask layer.

12. The method of claim 11, wherein depositing photoresist material comprises spin coating the photoresist material, and patterning the photoresist material to a desired length.

13. The method of claim 9, wherein depositing a crossover circuit trace comprises depositing conductive material and patterning the conductive material.

14. The method of claim 13, wherein patterning comprises:

depositing a photoresist material on the conductive material;
patterning the photoresist material to a desired length;
etching the conductive material; and
removing the photoresist material.

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15. The method of claim 13, further comprising before depositing the conductive material, depositing protective material to protect the circuit components.

16. The method of claim 9, wherein depositing a crossover circuit trace comprises:

- depositing a photoresist material over the sacrificial material;
- patterning the photoresist material to have at least one opening of a
- 5 desired length;
- depositing conductive material on the photoresist material and the opening; and
- removing photoresist material along with the conductive material deposited on the photoresist material.

17. The method of claim 9, wherein depositing a sacrificial material comprises depositing the sacrificial material in a manner causing the sacrificial material to be dome shaped.

18. The method of claim 9, wherein depositing one or more circuit components comprises depositing a circuit trace.

19. The method of claim 9, wherein the sacrificial material comprises polynorbornene.

20. The method of claim 9, wherein the crossover circuit trace comprise a signal trace.